

IN THE CLAIMS

The following represents the complete listing of the claims in this application in the present state including any amendments sought to be entered at this time.

1-50 (canceled).

51 (previously presented). A container handling system as in claim 63 wherein said hydraulic rotary actuator has a double-ended output shaft and wherein said mechanized pivoting arm arrangement includes a pair of spaced parallel one-piece curved arms, one attached to be operated by each end of said double-ended output shaft.

52 (previously presented). A container handling system as in claim 63 wherein said control system includes a speed controller for controlling the pivoting speed of said mechanized pivoting arm arrangement based on sensed angular arm position.

53 (previously presented). A container handling system as in claim 51 wherein said control system includes a speed controller for controlling the pivoting speed of said mechanized pivoting arm arrangement based on sensed angular arm position.

54 (canceled).

55 (previously presented). A container handling system as in claim 63 wherein said arm position sensing system for sensing the angular position of said at least one arm includes

an angular displacement transducer attached to sense the rotational position of said hydraulic rotary actuator.

56(previously presented). A container handling system as in claim 51 wherein said arm position sensing system for sensing the angular position of said at least one arm includes an angular displacement transducer attached to sense the rotational position of said hydraulic rotary actuator.

57(previously presented). A container handling system as in claim 52 wherein said arm position sensing system for sensing the angular position of said at least one arm includes an angular displacement transducer attached to sense the rotational position of said hydraulic rotary actuator.

58(canceled).

59(previously presented). A container handling system as in claim 64 wherein said hydraulic linear actuator is a hydraulic cylinder, said system further comprising control means for damping the action of said hydraulic cylinder toward the extremes of travel thereof.

60(previously presented). A container handling system as in claim 63 wherein said extensible boom is mounted on a side loading refuse vehicle so as to enable the emptying of containers into a charging hopper of said vehicle.

61(previously presented). A container handling system as in claim 56 wherein said extensible boom is mounted on a side

loading refuse vehicle so as to enable the emptying of containers into a charging hopper of said vehicle.

62(previously presented). A container handling system as in claim 57 wherein said extensible boom is mounted on a side loading refuse vehicle so as to enable the emptying of containers into a charging hopper of said vehicle.

63(currently amended). A mechanized container handling system for mounting on a refuse vehicle comprising:

- (a) an extensible boom adapted to be mounted on a refuse vehicle and ~~optionally~~ selectively operable to ~~extend~~ move laterally from a side thereof any selected distance between a fully extended and a fully retracted position;
- (b) a pivotally mounted mechanized ~~pivoting lift-and-dump and return~~ arm arrangement carried by said extensible boom and having a free end, describing the pivoting of which describes a lift-and-dump radius, ~~carried by said extensible boom~~, said arm arrangement further including a reversible hydraulic rotary actuator for reversibly rotating said mechanized arm arrangement having at least one rotating output shaft, ~~end-and~~ said arm arrangement including at least one arm, said at least one arm being a one-piece structure curved to reduce said lift-and-dump radius fixed to and being

~~connected to be supported by and connected to pivot~~
~~with rotation of a connected~~ said at least one
rotating output shaft end of said rotary actuator,
wherein pivotal operation of said arm arrangement
through a major arc ~~provides~~ enables a complete lift
and dumping operation;

- (c) a separately operated container grabber device for
grabbing and releasing containers of interest, said
grabber device being carried by the free end of said
at least one arm in an offset mounting arrangement;
- (d) a boom position sensing system for sensing the
relative extension of said boom;
- (e) an arm position sensing system for monitoring ~~the~~
~~angular~~ rotational position of said at least one arm
based on ~~the~~ a sensed rotational position of said
hydraulic rotary actuator;
- (f) actuators for extending and retracting said boom and
operating said container grabber device; and
- (g) a control system for controlling the operation of said
container handling system.

64(currently amended). A mechanized container handling
system for mounting on a refuse vehicle comprising:

- (a) an extensible boom adapted to be mounted on a refuse
vehicle and selectively operable to move laterally

therefrom for any selected distance between a fully extended and a fully retracted position so as to provide variable lateral, generally horizontal range with respect to a refuse vehicle for accessing and discharging containers of interest;

- (b) a pivotally mounted mechanized ~~pivoting lift and dump and return~~ arm arrangement carried by said extensible boom and having a free end describing the pivoting of which describes a lift-and-dump radius, said arm arrangement including at least one arm of one-piece curved construction ~~carried by said extensible boom,~~ and including a double acting reversible hydraulic linear actuator ~~and including at least one arm,~~ wherein said curved construction of said at least one arm being a one-piece structure curved to reduce reduces said lift-and-dump radius and wherein said at least one arm is being connected to be supported by and pivot with rotation of rotate on a mounting shaft carried by ~~and journalled with respect to~~ said extensible boom, and wherein pivotal operation of said arm arrangement through a major arc ~~provides enables~~ a complete lift and dumping operation;
- (c) a separately operated container grabber device for grabbing and releasing containers of interest, said

grabber device being carried by the free end of said
at least one arm in an offset arrangement;

- (d) a boom position sensing system for sensing the
relative extension of said boom;
- (e) an arm position sensing system for sensing the angular
position of said at least one arm based on the
rotational position of said mounting shaft;
- (f) actuators for extending and retracting said boom and
operating said container grabber device; and
- (g) a control system for controlling the operation of said
container handling system.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.